

**IN THE UNITED STATES DISTRICT COURT**

**FOR THE EASTERN DISTRICT OF TEXAS**

**MARSHALL DIVISION**

INTELLIGENT WATER SOLUTIONS, LLC	§	
	§	
<i>Plaintiff,</i>	§	Civil Action No. 2:16-cv-00689-JRG
v.	§	<b>(LEAD CASE)</b>
	§	
KOHLER CO.,	§	Jury Trial Demanded
	§	
<i>Defendant.</i>	§	

**PLAINTIFF'S REPLY CLAIM CONSTRUCTION BRIEF**

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## **I. THE INVENTORS' TESTIMONY**

Defendant's extensive reliance on the deposition testimony of the inventors is misplaced. The testimony of the inventors is extrinsic evidence that is probative only in "limited circumstances." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). "[I]nventor testimony is of minimal, if any, weight in . . . claim construction proceedings because inventor testimony is 'limited by the fact that an inventor understands the invention but may not understand the claims, which are typically drafted by the attorney prosecuting the patent application.'" *Koninklijke KPN N.V. v. Samsung Elecs. Co.*, 2016 WL 2610649, at \*1 (E.D. Tex. May 6, 2016) (quoting *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346-47 (Fed. Cir. 2008)).

Nonetheless, the majority of Defendant's references to the inventor depositions do not support Defendant's positions because they are based on mischaracterizations of the testimony. A primary fallacy of Defendant's inventor-based arguments is that Defendant improperly conflates an early prototype built by the inventors with an embodiment of the invention claimed in the '764 patent. *Compare* Dkt. 53 at 9-10 (describing the early prototype), *and id.* at 7 (alleging that the inventors conceded "that they did not invent any flow rate or volume control")<sup>1</sup>. As noted by Defendant in its Responsive Claim Construction Brief, the "prototype was designed for temperature and that's all it was intended to do." Dkt. 57 at 9 (quoting Onorati Dep. at 64). The temperature-control prototype has never been said to embody the claimed invention or serve as the basis of priority for any of the '764 patent's claims. Accordingly, Defendant's attempt to use the prototype to argue indefiniteness should be rejected.

## **II. This Court Should Reject Defendant's Request to Invalidate These Claims as Indefinite**

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<sup>1</sup> Page citations to docket entries refer to the document's ECF page numbers.

- A. **“system control means for receiving signals from said thermosensor and user interface and for processing said signals to generate appropriate control signals to control said fluid supply control valve actuator(s) and said flow control valve actuator means to achieve programmed or user-selected set temperature, flow rate and volume at said system outlet”**

The system control means is described in terms of its technical structure and connectivity. It is specified as receiving thermosensor signals; processing those signals; generating control signals with specific characteristics; and using those control signals to control valve actuators.

Defendant repeatedly alludes to an alleged requirement that the claimed invention must be capable of controlling all three parameters (temperature, flow rate, and volume) at once, but that limitation is not present in the claims themselves and has not been incorporated into any of Defendant’s proposed constructions. Put simply, it is not a requirement of the claims.

Claim terms with substantially less structure than present here have been found not to be means-plus-function terms, notwithstanding the presumption. For example, a claim’s use of “digital logic means” did not result in the application of § 112(f) where “digital logic means” connoted sufficient structure to a skilled artisan: namely, “digital circuits that perform Boolean algebra.” *See TecSec, Inc. v. Int’l Bus. Machines Corp.*, 731 F.3d 1336, 1348 (Fed. Cir. 2013). There, as here, the class of structures for performing receiving and processing is known to a person of ordinary skill and provides sufficient structure to rebut the presumption. *See id.*

If an algorithm(s) is required, the specification provides a disclosure of one or more of them. Algorithms may be found “in any understandable terms including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure.” *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008). The key inquiry is whether, in the context of the disclosed invention, the disclosed structure would enable a person of ordinary skill to provide an operative software program. *See Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1385 (Fed. Cir. 2011). Here, we are dealing with the simple opening and

closing of a “fluid supply control valve” and a “fluid control valve.” Accordingly, a person of ordinary skill in the art would understand the software necessary to provide the requisite control based on the information contained in the specification and claims of the ’764 patent.

**B. “microprocessor comprising a central processing unit (CPU) operably connected with an input/output (I/O) inter-face, random access memory (RAM), and read only memory (ROM)”**

This claim term is not subject to the presumption and is replete with structure. RAM, ROM, I/O interface, and CPU are known terms to a person of skill in the art. Defendant apparently acknowledges that claim 10 provides structure, but takes the position that the structure is insufficient to perform the claimed function in its entirety. This is untrue; the system control means performs the basic functions of processing and transmitting and receiving signals; accordingly, applying the same standard Defendant cites, claim 10 is not subject to § 112(f). *See Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1376 (Fed. Cir. 2003).

**C. “programmable digital processor which implements feedback control of one or more system parameters based on a control algorithm that is selected from a proportional, proportional plus integral, proportional plus integral plus derivative, or feed forward control algorithm”**

This phrase does not contain the word “means” and thus the Court must presume that the limitation does not invoke § 112(f). The presumption can be overcome if the challenger demonstrates that “the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). Here, Defendant cannot meet its burden because sufficient structure is recited. The structure is a processor, and more specifically, a programmable digital processor. “Processor” alone connotes sufficient structure to avoid application of the section. *See generally Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311 (Fed. Cir. 2004). In *Linear*, as here, the claim at issue did not use the term “means.” The Federal

Circuit explicitly held that “[b]ecause none of the disputed limitations include the word ‘means,’ the district court legally erred by failing to apply the rebuttable presumption that § 112 ¶ 6 does not apply.” *See id.* at 1319. In *Ex Parte Cutlip*, the PTAB found that “the claimed processor and memory very clearly refer to structural elements which Appellant’s Specification discloses are used to implement the functionality recited by the claimed modules.” *Ex Parte Cutlip*, 2014 WL 2466586 (P.T.A.B. May 29, 2014) (emphasis added).

- D. “remote system monitoring/control device operable for bidirectional data transmission and reception between said remote monitoring/control device and said system control means and/or system sensor(s) for remotely monitoring and controlling said one or more system functions or parameters, wherein said remote monitoring/control device operates to remotely generate signals to remotely select said one or more system functions or parameters, and wherein said remote monitoring/control device also operates to receive signals from said system control means and/or said one or more system sensor(s) to remotely monitor said one or more system functions or parameters”**

Remote system monitoring and control devices refer to a class of devices known to a person of ordinary skill. Taking the terms individually, a remote control device is known by a person of ordinary skill, just as a layperson, to be a device that allows control of a separate device from a distance. Similarly, a remote monitoring device allows monitoring of a separate device from a distance. “Remote system” does provide a degree of structure. For example, we know that it will not be integrated with the “system control means” or the “system sensor(s).”

Defendant is incorrect regarding the amount of structure that must be present in this claim element. Defendant again seeks to require extensive structure to be disclosed because it is improperly incorporating the function of the “system control means” into the analysis for this claim element. The proper focus here is the “remote system monitoring/control device” which functions essentially to send and receive data to and from the “system control means and/or system sensor(s).” This simple function of remote monitoring and control is a generic computer function



that does not require the disclosure of software or a specific algorithm. *See In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011).

Should an inquiry into the specification be deemed necessary, the bidirectional remote control is described in the specification beyond reference to a “personal computer or computerized building management system,” as Defendant suggests. Dkt. 57 at 21. Namely, the specification describes a variety of communication mediums that may be used by the bidirectional remote and further provides that, “[i]n one embodiment, the control is similar to a standard IR television remote but incorporates an electronic display with a pull-down menu allowing the user to program various system functions and receive data.” ’764 patent, 12:66-13:7. This was the language relied on when this element was added to the claims.

### **III. The Plain and Ordinary Meaning Should Apply to These Straightforward Claim Elements**

Plaintiff’s advocacy for plain and ordinary meanings for the claim terms is not in conflict with the Federal Circuit’s opinion in *Eon*. *See* Dkt. 57 at 22. What *Eon* actually said was that a “determination that a claim term needs no construction or has a plain and ordinary meaning may be inadequate when a term has more than one ordinary meaning or when reliance on a term’s ordinary meaning does not resolve the parties’ dispute.” *Eon Corp. IP Holdings v. Silver Spring Networks*, 815 F.3d 1314, 1318 (Fed. Cir. 2016) (emphasis added) (internal quotation marks omitted). Here, the terms have ordinary meanings that will resolve the Parties’ disputes.

#### **A. “fluid supply control valve”**

Defendant’s attempt to artificially narrow claim terms is evident with its construction of “fluid supply control valve.” Defendant attempts to replace a four-word term with a twenty-word long construction. It is indisputable that the primary limitation Defendant seeks to improperly import—“opening and closing smoothly, rapidly, and with adequate precision”—is used once in

the specification and in a paragraph that is explicitly describing one embodiment of the invention. See '764 patent, 5:29. Defendant seems to suggest its proposed limitation is warranted because the '764 patent's improvement over the prior art rests on its using a valve with specific characteristics, but that is not the case. As Defendant correctly describes in its brief, the "remote system monitoring device" from claim 1 and the "external data storage and input means" from claim 26 were the elements added to overcome the only rejection during prosecution. Dkt. 57 at 10. The specification's use of "must" in this context is not a clear disavowal of claim scope. "Fluid supply control valve" should be accorded its plain and ordinary meaning.

#### **B. "fluid control valve"**

The "opening and closing smoothly, rapidly, and with adequate precision" language Defendant seeks to import here is mentioned only in the context of one embodiment of a fluid supply control valve and should have no impact on the construction of "fluid control valve." Plaintiff will let the plain language of the specification speak for itself, rather than attempting to unravel Defendant's convoluted appeals to the prior art and accompanying inferences:

In the embodiment of the invention illustrated in FIG. 1, the hot water source 12 and cold water source 14 are each regulated by a separate supply valve, a hot water supply valve 18, and cold water supply valve 20. Alternately, a single valve can control both hot and cold water flow into the fluid mixing port 16. Commensurate with broader aspects of the invention, these and other control valves can be selected from a variety of conventional, electronically-controlled valves useful for regulating (i.e., initiating, terminating and modulating) flow of gases and/or fluids. Thus, for example, the hot and cold water supply valve(s) may be motor-driven or actuated by proportional solenoid, pressure solenoid or other valve actuation means adapted for electronic valve control. The valves must be capable of opening and closing smoothly, rapidly, and with adequate precision to achieve fine control of hot and cold water supply. In this regard, the valve must be capable of being adjusted by very small increments to provide a sufficient degree of precision for user selection and adjustment of water temperature.

'764 patent, 5:29-47 (emphasis added). "Fluid control valve" should be given its plain and ordinary meaning.

**C. “user interface input”**

While Plaintiff agrees with Defendant that this term—“user interface input” from claim 7—is related to the “user input means” discussed below in the context of claims 1 and 26, Plaintiff does not agree that the two terms should receive the same treatment or construction. This is due primarily to claim 7’s recitation of sufficient structure to achieve any alleged function and thus avoid the application of § 112(f), not to mention the presumption against means-plus-function treatment due to the lack of the word “means.” Claim 7 provides that the “user interface input is a remote user input selected from a keypad, touchpad, joystick, roller, pen selector, voice input, or optical input integrated within the remote system monitoring/control device.” ’764 patent, 20:49-53 (emphasis added). Sufficient structure exists when the claim language specifies the exact structure that performs the functions in question. *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259–1260 (Fed.Cir.2008). Here, the list of physical structures disclosed in claim 7 can achieve Defendant’s alleged function for “user input means”— “selecting a set temperature, flow rate and volume of fluid at said system outlet” (*infra*)—or any other alleged function of claim 7, thus a means-plus-function construction of this term is inappropriate.

**D. “user input means for selecting a set temperature, flow rate and volume of fluid at said system outlet”**

In order to decrease the number of terms the Court must consider and to simplify the disputes between the Parties, Plaintiff will agree that this term is governed by § 112(f) and agree to Defendant’s corresponding proposed function.<sup>2</sup> Plaintiff will work with Defendant to reflect this agreement in the Parties’ P.R. 4-5(d) Joint Claim Construction Chart.

**E. “fluid supply control valve actuator . . . for actuating opening and closure operations thereof”**

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<sup>2</sup> The Parties previously agreed to the structure for this term. *See* Dkt. 52-1 at 13.

“Actuator” is not a nonce word. As evidenced by the intrinsic record and the extrinsic evidence presented by Plaintiff, which Defendant wholly ignores, an “actuator” connotes structure to a person of ordinary skill as it has a known meaning in the relevant field of art. Defendant’s only argument in support of its contention that “actuator” is “nothing more than a verbal construct” is because the claim term mentions using the actuator for “actuating.” This argument is flawed as it would render many plainly structural terms to be considered mere “nonce” words. For example, a claim term including a “pump” that was used for “pumping” would be “nothing more than a verbal construct that does not connote sufficiently definite structure” according to Defendant’s argument; this would be an absurd result under the controlling case law and common sense. Defendant has not overcome the presumption that this term is not a means-plus-function term. Accordingly, the term should receive its plain and ordinary meaning.

**F. “flow control valve actuator . . . for actuating opening and closure operations thereof”**

Defendant has similarly not overcome the presumption that § 112(f) does not apply to this claim element. Defendant’s illogical argument that “actuator” does not connote structure should be rejected and this term should receive its plain and ordinary meaning.

**G. “memory means for entry and storage of user-defined temperature settings”**

Plaintiff has offered evidence and case law to rebut the application of 112(f) to this term; Defendant has apparently chosen to ignore it. Defendant fails to suggest any reason why this Court should not reach the same conclusion here that the Federal Circuit did in *Optimal*—§ 112(f) did not apply to “memory means for storing the position of the golf cup” because memory had a well understood meaning that provided sufficient structure for accomplishing the simple function present in the claim. *See Optimal Recreation Sols. LLP v. Leading Edge Techs., Inc.*, 6 F. App’x 873, 877-78 (Fed. Cir. 2001). Here, the memory means only has to store temperature settings and

is analogous in all relevant aspects to the challenged language in *Optimal*.

Defendant's inappropriate inclusion of the "nonvolatile" structural description from the specification into its proposed function in an attempt to render the claim indefinite should be rejected. If the claim element does receive § 112(f) treatment, the corresponding structure should be computer memory in general, not only nonvolatile memory.<sup>3</sup>

#### **H. "domestic water supply system"**

Defendant demonstrates intentional obtuseness in its arguments that "domestic water supply system" is a means-plus-function term lacking sufficient structure or indefinite because its meaning would not be clear to a person of ordinary skill in art. Defendant argues it is not clear what claim 24 adds to independent claim 1, but, again, when considered in the context of the rest of the claims it is plain that other claims are directed to "commercial hospitality fluid delivery system[s]." '764 patent, 22:18 (emphasis added). While Defendant tries to paint Onorati as not understanding this phrase, his comments in context show that he was reluctant (and rightfully so) to attempt to construe claim terms during an inventor deposition, but when pressed clearly stated that he "would say it's a watered supply in your house." Dkt. 57 at 34 (Onorati Dep. at 101 ("Q: Moving back up to Claim 24. What is a domestic water supply system? A: Again, I didn't write this document. That was verbiage our patent attorney used.")). Defendant has not rebutted the presumption that § 112(f) does not apply and has not shown that this term would not be understood by a person of ordinary skill. The plain and ordinary meaning should apply.

#### **I. "external data storage and input means for storing and transferring data to said system control means to control one or more system function(s) or parameter(s)"**

Defendant misconstrues the scope of the function that needs to be accomplished by the

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<sup>3</sup> Contrary to Defendant's suggestion, Plaintiff does not concede that "nonvolatile memory" is the sole appropriate corresponding structure.

structure present in this claim element to rebut the § 112(f) presumption.<sup>4</sup> Essentially, Defendant attempts to recycle the same arguments it uses against the “system control means for processing . . .” element (*see* section II. A. *supra*) to argue that “external data storage and input means” here is subject to § 112(f) because some amount of special-purpose programming is required to control the system function or parameters. However, the proper focus of the inquiry here is the structure required for storing and transferring data to the system control means so that the system control means controls the system function or parameters. The only structure that should be required is that for accomplishing the alleged function of the “external data storage and input means,” which is only the storing and transferring of data to the system control means. Defendant’s contention that both the “external data storage and input means” here and the “system control means for processing . . .” element are each separately responsible for controlling the system parameters should be rejected. Rather, as in *Katz*, the “external data storage and input means” is only responsible for generic computer functions—storing and transferring data to the system control means—and accordingly, this claim element discloses sufficient structure to avoid § 112(f).

#### IV. CONCEDED TERMS

Defendant does not discuss three terms it identified for construction in the Parties’ Joint Claim Construction Chart. (Dkt. 52-1). Those three terms are “remote system monitoring/control device,” “data transfer means,” and “laser control connection means.” *See id.* at 2, 6-7. Plaintiff can only assume that Defendant concedes that these terms are not means-plus-function claims and should receive their plain and ordinary meanings, as proposed by Plaintiff.

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<sup>4</sup> While Plaintiff stated in its Opening Claim Construction Brief that it “has adopted Defendant’s articulation of the function since no real dispute exists with respect to it,” that turned out to be incorrect based on the arguments Defendant makes in its Response relative to structure necessary for the function. Dkt. 55 at 22.

Dated: May 3, 2017

Respectfully submitted,



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**CERTIFICATE OF SERVICE**

The undersigned certifies that the foregoing document was filed electronically in compliance with Local Rule CV-5(a). As such, this document was served on all counsel who are deemed to have consented to electronic service. Local Rule CV-5(a)(3)(A). Pursuant to FED. R. Civ. P. 5(d) and Local Rule CV-5(d) and (e), all other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of the foregoing by email, on this the 3<sup>rd</sup> day of May, 2017.



Eric M. Albritton